INCIDENT RESOURCE MANAGEMENT

PURPOSE AND SCOPE

The purpose of this unit is to acquaint you with the resource categories that you may encounter at an incident. This unit will introduce the concept of incident resource management, identify the main resource categories, and describe resource typing. The unit will also cover how the Incident Commander tracks resource status and highlight several ways that resource status can be tracked at an incident.

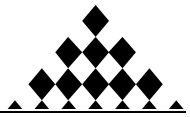
OBJECTIVES

After completing this unit, you should be able to:

- Describe the importance of incident resource management.
- Explain why resources are typed and where to get information about resource types.
- List the three resource status conditions used at an incident and what each means.
- Maintain resource status for a small incident.

TIME

Completion of this unit should take approximately 1.5 hours.



INTRODUCTION TO INCIDENT RESOURCE MANAGEMENT

The effective management of operational resources is a vital consideration in any incident. The ability to select the correct resource(s) for the task is essential to:

- Accomplishing the task.
- Ensuring resource safety.
- Ensuring the cost-effectiveness of the operation.

Resource management also encompasses maintaining the status of all resources assigned to an incident.

This unit will describe how the Incident Commander selects resources that are appropriate to the objective at hand and how resource status is tracked at an incident. First, however, the unit will introduce the various operational resource classifications that may be available at an incident.

RESOURCES USED IN OPERATIONS

Resources used in operations consist of all personnel and major items of equipment that are available, or potentially available, for assignment to incidents. (Equipment resources also include the personnel required to operate and maintain them.) To lend consistency to incident operations, resources are described by both *kind* and *type.*

Kinds of Resources

When the Incident Commander requests a *kind* of resource, he or she may be requesting a patrol car, helicopter, fire engine, or bulldozer. Resource kinds can be as broad as necessary to suit the incident application. It is important to remember that the different agencies may use the same or similar kinds of operational resources for a variety of incidents. For example, both police and fire departments often use helicopters, fuel tenders, and crew transports. Other kinds of resources—such as patrol cars, search dogs, or fire engines—are specific to the user agency or to an operation. Incident Commanders also must consider the *type* of resource required to ensure that resources assigned are appropriate for the incident objective.

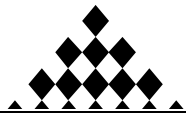
Definitions

Resources. All personnel and major items of equipment (including crews) that are available, or potentially available, for assignment to incidents.

Kind. Resources described by function (e.g., a patrol car or bulldozer).

Type. Resources described by performance capability (e.g., capacity or pressure factor).

Single Resources. Individual pieces of equipment and its personnel complement—or a crew of individuals with an identified supervisor—that can be used in a tactical application at an incident.



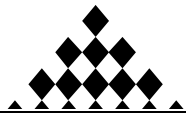
Types of Resources

Resource *type* describes the *performance capability* for a specific resource. Resources are usually typed by number, with 1 being the highest capability or capacity, 2 the next highest, etc. For example, in the Fire Service, a Type 1 helicopter has a capacity of 16 persons. A Type 3 helicopter has a capacity of five persons. Resource typing aids in planning, ordering, and monitoring resources at an incident.

Higher capacity is not always the best for the job, however. For example, a Type 1 fire engine, which has the greatest pumping capacity, may not be able to access the area where the resource is needed. It is important, then, that the capability of the resource is spelled out clearly in the type description.

Currently, only a few typing standards have been developed nationally—mainly in the wildland fire arena. However, every community should have an up-to-date *Emergency Operations Plan (EOP)* that describes how that community will do business during an emergency. Attached to every EOP are *functional annexes* that provide information about how specific functions (e.g., evacuation, health and medical services) will be performed during emergency operations. As a part of each functional annex, the responsible agencies should include a list of resources, by kind and type, that the agency can make available during an emergency. For example, a resource list that might accompany a functional annex is shown below.

Kind	***Resource***	***Type***	***Available***	***Description***
B	Bus	1-2	20	66-passenger, diesel, automatic transaxle
UV	Utility vehicle	1-3	10	3-passenger, 2¼-ton, dual axle, automatic transaxle, winch-equipped
UV	Utility vehicle	1-3	2	6-passenger, 2¼-ton, dual axle, manual transaxle, winch-equipped
SV	Security vehicle	1-2	5	6-passenger, 4-door, automatic transaxle, security screen, warning lights

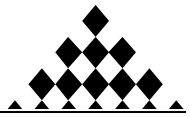


***Types of Resources** (Continued)*

The figure below shows another example of a resource list. All resource lists will not look the same. Every community will have a wide variety of resources and a variety of ways to document the resources.

Sample Resources (Public Works)

Radio	No Radio	Description	Mission	Crew
1		Sedan	Supervisor	1
3		3/4 t pickup w/ comp	Supervisor	1
5		3/4 t pickup	Supervisor	1
7		4 yd. dump w/ comp	Drainage	3
9		4 yd. dump	Drainage	3
11		Camel truck	Drainage	2
13		4 yd. insulated dump	Street repair	3
15		Tractor w/lowboy	Transportation	1
	17	8 yd. dump w/ comp	Paving, utility	2
	19	8 yd. dump	Paving, utility	1
21		25 yd. tractor-trailer	Solid waste transfer	1
23		Flatbed w/lift gate	Utility	1
	25	Cat D-8 dozer	Excavation & grading	1
	27	Motor grader	Utility	1
	29	Motor grader	Utility	1
31		Power sweeper	Street cleaning	1
	33	Power sweeper	Street cleaning	1
	35	Power sweeper	Street cleaning	1
37		4 yd. self-loading dump	Utility	1
39		4 yd. self-loading dump	Utility	1
	41	Backhoe	Excavation	1
	43	Backhoe	Excavation	1
	45	Rubber-tired dragline	Levee & ditch maint.	1
47		Truck crane, 1/2 yd.	Utility	1
49		1/2 t pickup	Complaint, inspection	1
51		1/2 t pickup	Complaint, inspection	1
53		1/2 t pickup	Complaint, inspection	1
55		1/2 t pickup	Complaint, inspection	1
	57	Packer truck	Solid waste collection	3
	59	Packer truck	Solid waste collection	3
	61	Packer truck	Solid waste collection	3
	63	Packer truck	Solid waste collection	3
	65	3000 gal. tank truck	Flushing	1
	67	G-660 Gradall	Large conduit repair	2
	69	8 yd. dump	Large conduit repair	1
	71	8 yd. dump	Large conduit repair	1
	73	Snow blower	Snow removal	1



***Types of Resources** (Continued)*

Attachments to the functional annexes to a community's EOP can be an enormous help to the Incident Commander at the time of an incident. These attachments will also support personnel in the EOC.

RESOURCE CATEGORIES

To help the Incident Commander further, resources are categorized.

As introduced in Unit 2, s*ingle resources* are individual pieces of equipment or a crew of individuals, with an identified work supervisor, that can be used in an operational application at an incident. A single resource is most commonly used early in an incident. Single resources may be typed to reflect capability. Examples of single resources that are typed include:

- A police motorcycle.
- A fire company engine.
- A medical team.
- A helicopter.
- A K-9 search and rescue team.

An example of how single resources can be used at an incident is shown in the scenario below.

Scenario: A car has slid into a utility pole, knocking down the pole and injuring the driver. As the first to arrive on the scene, the Fire Captain has requested an ambulance, a utility crew, and a police patrol car.

In this scenario, the fire company, ambulance, utility crew, and patrol car are all single resources.

Definitions

Emergency Operations Plan (EOP). A formal, written document that describes, in detail, how a State or community will conduct business in an emergency. The EOP:

- Assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency.
- Sets for the lines of authority and organizational relationships, and shows how all actions will be coordinated.
- Describes how people and property will be protected in emergencies and disasters.
- Identifies personnel, equipment, facilities, supplies, and other resources available—within the jurisdiction or by agreement with other jurisdictions—for use during response and recovery operations.
- Identifies steps to address mitigation concerns during response and recovery operations.

(The process for preparing an EOP is very detailed and cannot be covered in this course. For more information, consult FEMA's State and Local Guide (SLG) 101, *Guide for All-Hazard Emergency Operations Planning.*)

Functional Annex. The parts of the EOP that focus on operations—what the function is (e.g., evacuation, mass care, health and medical services, and resource management) and who is responsible for performing it. Annexes should emphasize responsibilities, tasks, and operational actions that pertain to the function being covered.

RESOURCE CATEGORIES (Continued)

A *Task Force* is any combination and number of single resources (within span-of-control limits) assembled for a particular operational need. Task Forces may be a mix of different kinds of resources. Some examples of Task Forces include:

- Public Works: two bulldozers, two dump trucks
- Fire Suppression: two engines, one bulldozer
- Search and Rescue: one helicopter, two K-9 teams
- Law Enforcement: one SWAT team, one K-9 team, one ambulance
- Multiagency: five police officers, five fire engines, three medical teams

Each Task Force must have a leader and its own transportation, and each Task Force must have communication capability between its leader and the next-level supervisor.

Task Forces may report directly to the Incident Commander, the Operations Section Chief, or to a Division or Group Supervisor, depending on the level of expansion of the ICS organization.

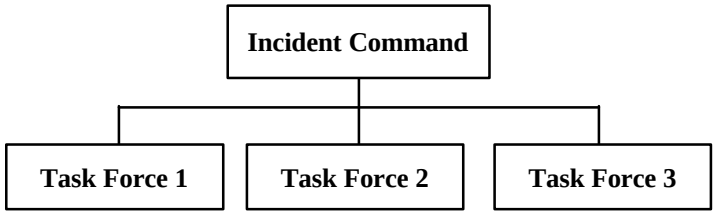
An example of how Task Forces may be used at an incident is shown in the next scenario.

Definitions

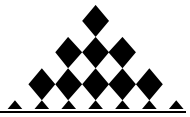
Task Force. A combination of single resources assembled for a particular operational need, with common communications and a leader.

Strike Team. A group of resources of the same kind and type (e.g., three drug K-9 teams, six patrol units, etc.). A Strike Team is managed by a *Strike Team Leader*.

Scenario: A landslide has buried three houses and one business structure. The Incident Commander has established the ICS organization shown below:



- Task Force 1 is a Public Works Task Force, consisting of two bulldozers and two dump trucks for repairing water main breaks.
- Task Force 2 is a Fire Department Task Force, consisting of two engines and one bulldozer for extinguishing industrial fires.
- Task Force 3 is a Search and Rescue Task Force, consisting of two search and rescue teams and two medical technicians.



RESOURCE CATEGORIES (Continued)

Note that, while the Task Forces in this scenario consist of different kinds of resources, each serves a specific operational function. Task Forces can be very flexible in their makeup, with no limitations imposed other than span of control.

Strike Teams are resources of the same kind and type. Strike Teams must have a leader and communications among the single resources that make up the Strike Team—and between the Strike Team and its leader. Strike Teams usually are used for major incidents. They may report to the Incident Commander, the Operations Section Chief, or to a Division or Group Supervisor, depending on the level of expansion of the ICS organization.

An example of how Strike Teams may be used is shown in the next scenario.

> ***Scenario:*** Heavy rain has threatened to cause flooding along several streams in central Kentucky. The Incident Commander at the Brown Creek incident has requested a Public Works Strike Team to report to the Incident Staging Area. This Strike Team consists of a Strike Team Leader and five 10-ton dump trucks full of sand for sandbagging.

Grouping single resources into Task Forces and Strike Teams offers the Incident Commander several advantages for resource management, including:

- Providing a more effective way to plan resources.
- Providing an effective way to request resources.
- Reducing radio traffic.
- Improving organizational expandability for large operations while maintaining a good span of control.

TRACKING RESOURCE STATUS

All operational resources at an incident will be in one of three status conditions:

- *Assigned* resources are performing active functions.
- *Available* resources are ready for immediate assignment.
- *Out-of-service* resources are not ready for assigned or available status.

Note that resources may be out-of-service because of:

- Mechanical servicing required for vehicles and equipment.
- Personnel requiring a rest period, thus reducing personnel levels below an operational threshold.
- Environmental reasons, such as weather or darkness.
- Cost reasons—the cost of using the resource is prohibitive.

Usually, out-of-service resources will be located at a Base (if a Base has been established).

Resource status during an incident is maintained and updated by the supervisor who controls the resource. Depending on the level of expansion of the ICS organization, changes in resource status may be made by the Incident Commander, the Operations Section Chief, or a Division or Group Supervisor. If a Staging Area is activated, the Staging Area Manager will maintain the status of resources in the Staging Area and report changes in status upward through the chain of command. All changes of status of more than a few minutes must be communicated to the appropriate organizational element.

TRACKING RESOURCE STATUS (Continued)

In large-scale incidents, a Resource Unit Leader also will maintain status on all assigned resources. The Resource Unit Leader will not, on his or her own authority, change the status of any resource.

There are several status-keeping methods that can be used to record resource status. Communities may select a method based on the size or complexity of the incident, the number of personnel available to track status, or the degree of automation available at the incident. There are several ICS forms that have been proven successful for tracking status within Fire Service incidents:

- ICS Form 201 (Incident Briefing) includes a resource summary.
- ICS Form 204 is an assignment list.
- ICS Form 211 (Check-in List) provides a way to record resources that are checking in to an incident.

Sample copies of each of these forms are included in Appendix B to these course materials.

Some communities may not use the ICS forms to track resource status. If you may be responsible for tracking resources at an incident, be sure to determine **in advance of an incident** the method that your community uses.

UNIT SUMMARY

The ability to select the right resource for each operational assignment at an incident is essential to:

- Accomplishing the task.
- Ensuring resource safety.
- Ensuring the cost-effectiveness of the operation.

This unit covered the operational resource classifications that may be available at an incident and how those resources may be tracked. *Operational resources* include all personnel and major items of equipment that are available, or potentially available, for assignment. For consistency, resources are described by:

- *Kind* (e.g., patrol cars, helicopters, or a utility truck).
- *Type* (i.e., performance capability).

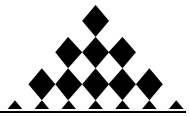
Although only a few typing standards have been developed nationally, each community should maintain an up-to-date list of the resources that each agency can provide for an incident in the agency's *functional annex* to its *Emergency Operations Plan.*

To further define resources, they may be categorized into:

- *Single Resources,* which are individual pieces of equipment or a crew of individuals, with an identified work supervisor, that can be used in an operational application.
- *Task Forces,* which are combinations of single resources, organized within the limits of span of control. Task Forces may be a mix of different kinds of resources but, together, they must serve a specific function.
- *Strike Teams,* which are resources of the same kind and type. Strike Teams must have a leader and the ability to communicate with each other and with the command structure.

Grouping single resources into Task Forces and Strike Teams:

- Promotes effective resource planning.
- Provides an effective way to request resources.
- Reduces radio traffic.
- Improves organizational expandability while maintaining an effective span of control.



***UNIT SUMMARY** (Continued)*

All resources will be in one of three status conditions:

- *Assigned* resources are performing active functions.
- *Available* resources are ready for immediate assignment.
- *Out-of-service* resources are not ready for assigned or available status because of mechanical problems, the need for rest, etc.

Resource status is maintained and updated by the supervisor who controls the resource. Changes in resource status may be made by the Incident Commander, the Operations Section Chief, or a Division or Group Supervisor. All changes of status for more than a few minutes must be communicated to the appropriate organizational element.

There are several status-keeping methods that can be used to record resource status. If you will be—or could be—assigned a status-keeping role at an incident, find out which method your community uses.

NEXT STEPS

If you believe that you have mastered the information included in this unit, complete the Self-Check Exercise that begins on the next page. When you have completed the Self-Check Exercise, compare your answers with those provided in the Answer Key following the Self-Check Exercise. If you answered all of the questions correctly, continue to Unit 5. If you answered any questions incorrectly, review the appropriate section(s) of this unit to ensure that you have learned the material. Then, proceed to Unit 5.

UNIT 4: SELF-CHECK EXERCISE

Instructions: Use this Self-Check Exercise to test how well you learned the material presented in Unit 4. When you complete the exercise, check your answers against those in the Answer Key following this Self-Check Exercise. If you answered any questions incorrectly, be sure to review the corresponding section of the unit before proceeding to Unit 5.

1. **Resources** include:

   a. All incident facilities and equipment.
   b. Personnel and major items of equipment that are available for the incident.
   c. The financial resources of all agencies responding to the incident.
   d. Major items of equipment that are available for the incident.

2. A tow truck is an example of a:

   a. Single resource.
   b. Task Force.
   c. Strike Team.

3. A **functional annex** should include information about the resources available to perform a function in an emergency.

   a. True
   b. False

4. A **Type 1** resource is always preferable.

   a. True
   b. False

5. All **Strike Team** resources must be from the same agency.

   a. True
   b. False

6. A **kind** of resource is categorized by function.

   a. True
   b. False

7. An Incident Commander has requested that the Police Department provide one K-9 team and two search and rescue teams to an incident. These resources are best described as:

   a. Single resources.
   b. A Task Force.
   c. A Strike Team.

8. Five Type 2 bulldozers are best described as:

   a. A Task Force.
   b. A Strike Team.
   c. A Public Works Unit.

9. You are relieved after a 12-hour operational period so that you can rest before working tomorrow What is your status?

   a. Available
   b. Assigned
   c. Out-of-service

UNIT 4: SELF-CHECK EXERCISE ANSWER KEY

1. **b. Personnel and major items of equipment that are available for the incident (Page 4-2)**
2. **a. Single resource (Page 4-5)**
3. **a. True (Page 4-3)**
4. **b. False (Page 4-3)**
5. **b. False (Page 4-7)**
6. **a. True (Page 4-2)**
7. **a. Single resources (Page 4-5)**
8. **b. A Strike Team (Page 4-7)**
9. **c. Out-of-service (Page 4-7)**